Department of Health and Human Services

OFFICE OF
INSPECTOR GENERAL

MEDICAL BILLING SOFTWARE AND PROCESSES USED TO PREPARE CLAIMS

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PURPOSE

To provide information about the different types of medical billing software and the processes used to prepare claims for submission to Medicare.

BACKGROUND

Medicare leads all other health care payers in accepting and processing electronic claims. Medicare receives electronic claims directly from providers or via independent parties (billing agencies) acting on their behalf. In 1998, Medicare received and processed more than 700 million claims. More than 80 percent of these claims were submitted electronically using computer software developed for medical billing. Medicare also received 149 million Part A claims in 1998. Nearly all of which (96-97 percent) were submitted electronically.

Medical billing software helps providers manage financial information and reduces errors on claims submitted to Medicare and some 2,800 other insurance companies. Medical billing software can be a standalone function or integrated with other aspects of medical practice such as patient medical records. It can be linked to the laboratory and other ancillary service areas. It can interface with other software that will analyze claims for completeness, accuracy and probability of being edited by Medicare. The use of computers and software in the field of medicine is growing rapidly. More and more medical providers are turning to electronic medical records. Ancillary equipment such as x-ray machines, laboratory testing equipment and other patient testing equipment and services will soon be linked electronically to the patient's medical record.

We reviewed software literature and claim preparation processes to determine whether Medicare may be vulnerable to claims generated by electronic systems. We looked for vulnerabilities in the billing process and for vulnerabilities in software used to generate claims.

CLAIM ORIGINATION

We were unable to determine how many claims Medicare receives directly from medical providers or from third parties billing on their behalf. Medicare can identify providers who have a *submitter number* to bill electronically. However, this does not necessarily mean that the submitter number shown on a claim is actually the party that submitted

claims to the Medicare system. An unknown number of providers allow billing companies to use their submitter number. The potential for misuse of submitter numbers is a vulnerability not adequately addressed by Medicare.

Medicare cannot identify most of the clearinghouses and billing agencies submitting claims into the Medicare systems. When clearinghouses and billing agencies submit claims to Medicare, they use the physician's or medical supplier's billing number and submitter number. Inability to assess whether a claim came directly from a provider, or passed through the hands of a third party, represents a vulnerability in Medicare program safeguards. Medicare cannot determine whether claims enter their system from an authorized biller's site and computer or from unauthorized sites and computers. Billing companies, their employees and employees of providers have access to patient and provider information needed to access the Medicare system. This information can be misused (without the medical provider's knowledge) by clearinghouses or their employees to generate false claims.

BILLING PROCESSES

Source Documents

Diagnostic and service information, about a patient visit, is rarely coded directly into medical billing software by physicians and other medical service providers. This information is usually conveyed to the person or entity responsible for preparing a bill via a "source document" completed at the end of the patient visit.

Source documents can be preprinted forms completed by the physician or handwritten notes made by the doctor or notes made by other office staff for a physician. Whether formal, or informal, all source documents provide information needed for billing. The quality and completeness of this information vary from physician to physician. Improperly designed source documents contribute to billing error.

Data Entry

Each time information changes hands, or is acted upon outside an automated system, the risk of error increases. Source documents pass through the hands of many people before information is entered into a software program. Employees of the physician, or an outside billing agency, may misinterpret source document information, mis-key information into the system or add, delete or modify information on source documents. Whether intentional or unintentional errors occur, the patient's medical record may not support the claim submitted to Medicare. The claim will be incorrect, resulting in an overpayment or underpayment.

MEDICAL BILLING SOFTWARE

Basic billing software relies heavily on user knowledge and entry skills. It is widely distributed by Medicare fiscal agents and the private sector. Users key most, if not all, claims information onto a claims facsimile. The software manipulates these entries to produce an electronic claim. Typical errors involve entry errors, incorrect or missing patient or provider information, incorrect or incomplete diagnosis codes or invalid Current Procedural Terminology codes. Basic medical billing software, developed for mass markets, usually does not allow users to customize or override its programs. The greater risk of claim error is in data entry.

Informational software augments basic software capabilities. It uses data bases and linked files to recall patient, provider, diagnostic and service information. Invalid code combinations, missing diagnosis and other errors that might prevent processing of a claim can be brought to the users attention before the claim is submitted for payment. Informational software does not appear to generate erroneous claims. It provides tools to help providers code their claims accurately. Vulnerabilities are more likely to stem from improper software configuration and use. For example, limited procedure coding options for office visits may steer claim decisions to higher valued procedure codes.

Interactive software combines and enhances basic billing and informational software capabilities. It can give the user options for correcting problems detected by the software. What distinguishes interactive software from other medical billing software is its ability to provide the user with information and the likely consequences (no pay, more pay, less pay) of their decision.

Proprietary software may present the greatest risk of misuse. This type of software is developed for a specific user. Inner workings of proprietary software may only be known to a single person or a select few. Hidden programs may add or modify claim information producing erroneous or fraudulent claims. Unlike commercially available software packages, manufactured for a broad market, proprietary software is created to meet a specific, single customer's needs. Commercial software that produced inaccurate claims has a greater chance of detection and of being reported by honest medical providers. Proprietary software presents a vulnerability to Medicare because it is created for, and used by, a select few. Proprietary software, and not commercial software, posses the greatest risk of being intentionally designed to produce improper or inaccurate claims.

CONCLUSION

It appears that programs written for commercial distribution to a large audience pose little risk of producing erroneous or false claims. Proprietary software, by its very nature, appears more likely to pose some risk of misuse or fraudulent use. As with paper claims, humans (and not software) may be the greatest cause of claim error.

Billing Medicare has become a complex endeavor. The sheer number of diagnostic codes, procedure codes and other coding requirements increase the chance of billing error. Automation helps physicians, and other Medicare providers, manage data. It helps ensure that claims for reimbursement will meet Medicare standards for claims acceptance. The same tools used to ensure accurate billing can also be misused to maximize reimbursement and to submit false claims.

The HCFA needs to evaluate its electronic claim safeguards to ensure that only agencies authorized by a provider submit claims. As further work is done in this area, the Health Care Financing Administration may want to consider:

▸ Identifying and registering all clearinghouses and third-party billers. The Internal Revenue Service requires preparers of tax returns to identify themselves. Medicare should require claim preparers to do the same. This would provide an audit trail and ensure that claims enter the Medicare system from authorized sources.

▸ Improving safeguards to ensure that electronic claims are accepted only from authorized sites and terminals. Passwords and new technologies, such as caller identification, can be used to ensure that claims are received and processed only from known terminals.

▸ Educating the provider community concerning their liability for erroneous claims submitted to Medicare using their provider number(s). The HCFA currently relies on provider reviews of remittance notices to identify misuse of provider numbers. These notices can be re-routed to a billing company, or another address, and providers may never see them. Providers should be made aware of their responsibility to review remittance notices.

HCFA COMMENTS

We received comments to this report from HCFA. They concurred with all of our recommendations and provided technical comments. Where appropriate, this report was revised to incorporate those comments and suggestions. The full text of HCFA's response can be found in Appendix A.

TABLE OF CONTENTS

I N T R O D U C T I O N

PURPOSE

To provide information about the different types of medical billing software and the processes used to prepare claims for submission to Medicare.

BACKGROUND

The Health Care Financing Administration (HCFA) administers Medicare, the nation's largest health insurance program. Medicare provides health insurance to people age 65 and over and those who have permanent kidney failure and certain people with disabilities. Medicare has two parts: Hospital Insurance (Part A) and Supplementary Medical Insurance (Part B). Part A helps patients pay hospitals and skilled nursing facilities for inpatient services. It also helps pay for home health services and hospice care. Medicare Part B helps patients pay for physician services, outpatient hospital services, medical equipment, supplies and other health services. More than 40 million people are currently enrolled in Medicare.

In 1998, Medicare contractors received and processed more than 700 million claims. More than 80 percent of these claims were submitted electronically using medical billing software. Medicare also received 149 million Part A claims in 1998. Nearly all of which (96-97 percent) were submitted electronically. The remaining claims were submitted on paper claims and were manually entered into the claims processing system by contractor staff.

In addition to claims preparation and submission, physicians, hospitals and other medical providers use medical billing software to help them manage financial and medical information. Computerization lowers costs and reduces the likelihood of error on medical claims submitted to more than 2,800 insurance companies. Medical billing software can be a stand-alone function or integrated with other aspects of medical practice such as patient medical records. It can be linked to the laboratory and other ancillary service areas. It can interface with other software including software that will analyze claims for completeness, accuracy and probability of being edited by Medicare or other insurers.

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Today, Medicare leads all other health care payers in electronic claims acceptance and processing. In the early eighties, Medicare gave providers free, or low cost, software so they could bill electronically. Initially, there were no national standards and each Medicare fiscal agent developed and distributed their own unique software. These different electronic formats hindered the development of affordable off-the-shelf medical billing software. Efforts by HCFA that led to standardization of record layouts and other data processing elements has spurred the development (and medical community acceptance) of software for electronic claim preparation and submission. "Off-the-shelf" billing software in a wide price range is now readily available to the medical community.

Although Medicare provides free electronic billing software and support to assist providers, providers are not required to use Medicare's software. If they choose, a provider can purchase their own software from a public/commercial source. The producer of the software ensures that their product complies with Medicare requirements for electronic claim submission.

An unknown number of Medicare providers contract with an independent party (commonly referred to as a billing agency) to prepare their electronic claims. The providers furnish the billing agency with information about patients and the services provided to them. The billing agency enters the information into their computer systems and electronically submits the claims to Medicare using the provider's Medicare authorization. Other providers enter claims information into their own computer system but contract with a clearinghouse to actually submit their claims to Medicare and other insurance companies.

The HCFA captures information regarding billing agencies on provider enrollment applications.[1] They also approve billing arrangements before an applicant can receive billing privileges. Providers not adhering to billing arrangements can have their assignment privileges revoked. Studies have shown that information on provider applications concerning billing agents is often outdated and inaccurate. The HCFA's primary safeguard against billing agency fraud/abuse is a policy stating that:

> "...all Medicare payments are made in the name of the provider and sent to a 'pay-to-address' designated by the provider. In addition, monthly remittance notices are sent to the provider showing what is billed under his/her name. Therefore, the provider community has a responsibility to review the remittance notice and notify the program if they believe false claims were generated."

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[1] In the future, enrollment information will be recorded in HCFA's Provider Enrollment, Chain and Ownership System (PECOS). The PECOS will record all provider enrollment information and will capture some information on chain organizations.

METHODOLOGY

We researched more than 100 Internet sites maintained by manufacturers and/or distributors of medical billing software. At each site, we analyzed statements about products and medical billing capabilities. We used manufacturers and distributors' product descriptions to classify widely available commercial software into one of three categories based on the nature and extent of interaction between the software user and the software. A fourth category was created to discuss software not commercially available to the medical community. Observations and hands-on experience with software at medical conferences supplemented our Internet research. Several publications related to electronic billing were also reviewed.

We also examined the various steps that occur in preparing claims for submission to Medicare for payment. Each step in the claims preparation processed was examined to determine whether any vulnerabilities might exist. We used the General Accounting Office's (GAO) Audit Guide for Evaluating Internal Controls In Computer-Based Systems and other books on assessing controls and vulnerabilities in computerized systems. These controls and vulnerabilities are provided at the beginning of each discussion.

As part of this inspection, we randomly selected two samples of Medicare contractors from the Chief Financial Officer's 1998 audit of Medicare claims. Each sample consisted of 10 contractors selected at random without replacement. We contacted each contractor by telephone. We asked if they could readily identify which claims were submitted directly from medical providers and which claims were submitted through a clearinghouse or third-party biller. If the fiscal agent could not readily identify clearinghouses or third party billers from their claims data, we asked whether this information was available elsewhere in their system.

This report focuses on processes used by physicians for billing patients, Medicare and other insurers. The same, or similar processes, are used by hospitals, clinics, laboratories and other medical suppliers to prepare their bills. The vulnerabilities discussed apply to all parties involved in Medicare claims preparation or submission.

This review was conducted in accordance with the *Quality Standards for Inspections* issued by the President's Council on Integrity and Efficiency.

CLAIM ORIGINATION

Physicians and Other Providers

Controlling access to Medicare's computer systems by identifying and verifying persons who try to gain access reduces risk and potential adverse impact that unauthorized or malicious acts could have on the Medicare program. (GAO. Pages 84 & 99)

Since 1990, Medicare has required physicians and other providers of medical services to submit claims directly to Medicare on behalf of beneficiaries. The increased workload and increasing complexity of procedure and diagnostic coding has encouraged physicians to turn to computer automation to improve efficiency.

Physicians and other medical service suppliers must be authorized to bill Medicare electronically. Each is given a unique number (submitter number) to use when submitting claims electronically. We were unable to determine how many electronic claims Medicare receives directly from physicians and other medical providers or from third parties billing on their behalf. We found that Medicare can identify providers who have requested and obtained a submitter number; however, this does not mean that the submitter number shown on a claim is actually the party that actually submitted claims to the Medicare system. An unknown number of providers allow billing companies to use their submitter number. Medicare assumes the provider is sending in claims when, in fact, anyone with a computer, modem and access to a provider's submitter number and patient's health insurance number could be sending claims to Medicare. The potential for misuse of submitter numbers is a vulnerability not adequately addressed by Medicare.

Clearinghouses and Other Third-Party Billers

Audit trails are necessary to trace the flow of data. They identify the source of the claim, and all persons or parties through whom the claim passed before it was received by Medicare. (Porter & Perry. Pages 103 - 104)

Claims entering the Medicare program via a clearinghouse or billing agency do so using *the provider's submitter number*. Consequently, Medicare is unable to identify most of the clearinghouses and billing agencies actually submitting claims to Medicare.

We tried to determine how many claims enter the Medicare system from a third party only to discover that many carriers and intermediaries have no way of knowing who actually submitted the claim to Medicare. Inability to assess whether a claim came directly from a provider or passed through the hands of a third party represents a vulnerability in Medicare program safeguards. Medicare cannot determine whether claims enter their system from an authorized biller's site and computer or from unauthorized sites and

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computers. Billing companies, their employees and employees of providers have access to patient and provider information needed to access the Medicare system. This information can be used (without a providers knowledge) to generate false claims.

Locating information about clearinghouses, third-party billers or billing services is not easily done. A manual review of provider applications for a Medicare billing number will, in some cases, indicate that claims will be submitted to Medicare via a third party. Our experience, during other studies, is that the information in the carrier's provider files is often obsolete or inaccurate.

Many clearinghouses and billing agencies use the same commercial billing software packages available to hospitals, physicians and other medical suppliers. Some have developed their own proprietary software. The vulnerabilities discussed in this report apply to all parties involved in Medicare claims preparation or submission.

In an unrelated study, we were told by State Medicaid Agencies that third party billers and clearinghouses were an area of concern. Clearinghouses and third-party billers charge by the claim and States feel that this may serve as an incentive to split claims. At least one State was concerned that they did not know who actually submitted the claim or from where the claim was submitted. They felt that anyone with access to a physician's electronic billing number and access to a telephone could submit false claims for payment.

More than 30 billing individuals/entities have been excluded from participation in Medicare and State Medicaid programs. There are also a number of open criminal cases involving billing agency fraud. In most cases, these companies used the information they obtained from legitimate providers to prepare and submit false claims. In some cases, the billing companies totally fabricated claim information and billed for services not rendered. Other problems with billing companies include unbundling of services, upcoding, adding services and diagnostic information and billing more than one carrier for the same services provided to a patient.

THE BILLING PROCESSES

Providers and billing companies can submit claims to Medicare that cause payment errors. However, errors on claims can occur long before an actual claim is produced. Providers, their employees and subcontractors may add, delete or modify potential claim information at several points in the billing process. Vulnerabilities inherent in billing processes affect claim accuracy.

Data Origination

"It is important to establish control of the data as close to the point of origination as possible, since the remainder of ...[the processing steps] depends upon the accuracy of source data." (GAO. Page 141)

For some patients, the billing process begins when they schedule an office visit. Some medical providers have integrated their patient appointment software with their billing software. In these systems, the billing software system is prepared to execute a claim for each patient scheduled, using information already in the billing system, unless the appointment is canceled. In these instances, patients who fail to keep their appointment may still be billed for services.

For most patients, the billing process begins after a physician or other medical supplier provides services to them. Information about a patient visit and services provided is recorded in the patient's medical chart by the physician usually during the visit. Nearly all physicians make notes in the patient's chart during a patient visit. Many physicians use their handwritten notes as reminders and as a guide when dictating patient visit information for transcribing. Diagnostic and service information about the patient visit is very rarely coded directly into medical billing software by physicians and other medical service providers.[2] This information is usually conveyed to the person or entity responsible for preparing a bill via a "source document" completed at the end of the patient visit.

Source Documents

"Special purpose forms should be used to make sure the preparer initially records a transaction correctly and in a uniform format." (GAO. Page 142)

Source documents help promote accurate initial recording of information that will be used to generate claims. Missing or inaccurate entries exposes physicians and other medical suppliers to payment errors. These errors could result in an overpayment or under payment to the provider.

Source documents can be preprinted forms completed by the physician or handwritten notes made by the doctor or notes made by other office staff for a physician. Whether formal or informal, all source documents provide information needed for billing. The source document conveys information from the doctor or other medical supplier to the

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[2] New Technologies (such as voice recognition or bar coding) and acceptance of electronic records and systems by physicians and the medical community could eventually lead to direct entry into the system and the elimination of source documents.

person responsible for entering information about the patient encounter into the billing system. The quality and completeness of this information varies from physician to physician. We have attended billing seminars where billing personnel expressed frustration at their inability to get their physicians to provide diagnostic information.

Source documents are usually tailored to meet specific physician and medical supplier needs. This is usually done by listing only the most common procedures and services provided to patients. The physician simply checks off the procedure or service provided or hand enters services not on the preprinted form in space provided for this purpose. While most physicians use preprinted forms, some do not. These physicians jot down the information on a piece of paper or verbally inform office staff as to what services were provided to a patient. In rare cases, physicians may enter their own claim information directly into their own computer system.

Source documents are used to prepare the actual bills submitted to Medicare. Their design can influence billing decisions, possibly steering the user to procedure codes that have higher payment. Source documents may be ambiguous, leaving the user uncertain as to actual diagnosis and treatment provided to a patient. If improperly completed, documentation in the patient's medical file will not support the services billed and the resulting claim will be incorrect.

Improperly designed source documents that limit coding options, fragment procedure codes or otherwise affect the services billed to Medicare also contribute to billing error. Recent action by the Justice Department seeks recovery of millions of dollars in overpayments arising out of source documents that limited procedure code selection to higher valued codes. A number of cases involving improperly designed source documents that fragmented services, added services or upcoded services have also been successfully pursed by the Justice Department in recent years.

Data Entry

Each time information changes hands or is acted upon outside an automated system the risk of error increases. (Porter & Perry. Pages 221-222. Fitzgerald. Pages 16 - 22)

Source documents completed during the office visit are usually given to a designated person within the physician's office. This person ensures that source documents for each patient seen that day are collected. They may, or may not, review them for completeness. They may add, delete or modify the entries. For example, when a physician performs a procedure not listed on their preprinted source document, they note the service provided in space often provided for this purpose. Someone else may add the procedure code, diagnosis code and fee to the source document.

Completed source documents can be entered into the physician's own billing system and forwarded directly to Medicare. They may be entered into the physician's system and subsequently sent to a clearinghouse which, in turn, submits the claims to Medicare. Finally, source documents may be sent to an outside billing agency that will enter the data and submit it to Medicare either directly or through a clearinghouse.

The person who actually enters the data (whether an employee of the physician or an outside agency employee) uses the source document as a guide to identify patient, provider, diagnosis, procedure coding and other information needed for claim coding. They may also resolve any missing, incomplete or erroneous information detected either by computer software or document review.

Employees of the physician, or an outside billing agency, may misinterpret source document information, mis-key information into the system or add, delete or modify information on source documents. For example, the physician notes "I & D," [incision and drainage] on the source document. Another person (within or outside the physician's office) will decide which one of the 10 incision and drainage codes will be billed. The wrong choice may effect coverage and payment. Additions to, deletion of and modifications of source document information by data entry persons and other reviewers may not be supported in the patient's medical chart. Decisions made during the data entry process may reduce a physician's Medicare payment or create an overpayment.

MEDICAL BILLING SOFTWARE

Basic Software

Billing software that requires users to input extensive information increases the risk of claim error. (Fitzgerald. Pages 9 - 15)

Basic medical billing software is widely distributed by Medicare fiscal agents and the private sector. Our review of Internet literature on medical billing software indicates that this type of software is inexpensive and in widespread use. Users of non interactive software key most, if not all, claims information onto a claim facsimile. The software manipulates these entries to produce an electronic claim. Typical errors involve entry errors, incorrect or missing patient or provider information, incorrect or incomplete diagnosis codes or invalid Current Procedural Terminology (CPT) codes.

More sophisticated basic software may recall patient and provider billing information when a patient's last name, Social Security number (SSN), medical record number or other identifier is entered. The user then enters line-by-line information about the medical services provided onto the partially completed claim.

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Software feedback to the user, if any, is limited to program checks such as validity tests, completeness tests, logic tests and other conditions established by the software developer. Theses program checks may identify missing data required for processing. They may check to ensure that the SSN contains nine digits or that the procedure codes used to describe services are the correct length. If data entry errors exist, the software alerts the user. The user must determine how to resolve the problem(s) and re-enter the correct data.

A vulnerability exists because each person handling source documents is in a position to misinterpret, mis-key or deliberately alter the original information recorded by the physician. Information needed to prepare a claim that must be manually researched increases the chance of billing error. The number of procedure codes, diagnosis codes and other information needed to produce a claim increases the likelihood that a billing error will occur.

Informational Software

"...many operations previously performed manually are automated within [informational medical billing] system software." (GAO. Page 97)

Medical billing software has become more sophisticated, and many operations previously performed manually are now being linked to, or included in, billing software packages. Unlike basic software which relies heavily on user knowledge, judgement and entry skills, informational software uses internal data bases and dictionaries to increase productivity and minimize the number of entry errors.[3] Medical billing software packages with no, or limited, data base and dictionary capabilities can be linked to other independent software packages specifically designed to meet a particular billing need. For example, software capable of recalling all diagnosis codes (ICD-9 codes) and all procedure codes is available. Related software packages can be linked to billing software or used to create dictionaries containing limited coding information.

Another characteristic of informational billing software is the ability to recall patient and provider identifying information and in some cases the service items on the last claim submitted for payment. The user can then update the last bill by merely adding line items to the claim or deleting them. Adding line items to a claim is facilitated by the software's data bases or dictionaries. As the user enters a code or service number, the system's software automatically recalls the CPT codes, charge information and other pertinent information stored in the software's data base(s). If the procedure code or diagnosis code

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[3] Dictionaries and data bases are often used synonymously. In this report, we use the term data bases to refer to patient and provider information that is recalled when a patient's social security number or other identifier is entered. We use the term dictionary when referring to software that provides options for the user to select.

is not in the software's dictionaries, the software can be configured to accept additional codes and information or it can limit choices to those in the system. With a few keyboard entries the user can create a new claim using new information and information already stored within the system.

Like basic medical billing software, informational billing software also provides information to the user about validity tests, completeness tests, logic tests and other program controls established by the software developer. It can be linked to other software packages designed to analyze claim information to see if it will pass Medicare and private sector scrutiny. It can edit services entered on a claim and notify the user of invalid code combinations, missing diagnosis and other errors that might prevent the timely processing of the claim. The user draws upon information provided by the system, and outside the system, to resolve errors identified by the software.

Vulnerabilities inherent in information software are more likely to stem from manipulation of software configuration and data bases and not the software programs themselves. Limited procedure coding options may steer claim decisions to higher valued procedure codes and encourage the use of diagnostic codes not supported in the patient's medical record. Ultimately it is the software user's choices and decisions and not the software that affects the accuracy of claims submitted to Medicare. Improperly configured informational software data bases and dictionaries can be misused. Misuse increases the probability of error and exposes physicians and other users to potential payment errors.

Interactive Software

Vendor software packages usually contain many options that can be used to generate a claim. These software packages can be vulnerable to misuse and inadvertent error. (GAO. Pages 97 - 105)

Interactive medical billing software represents the state-of-the-art in software billing. Interactive software expedites data entry and offers users several options to facilitate claims processing. Bar coding is one option available that reduces input error. Other options include electronic links to an office laboratory or other medical services that allow the user to obtain billing information directly from the laboratory, other data files and other office areas. Interactive software recalls patient, provider and last claim information. The software recognizes multiple insurance payers and the different coding rules and codes used by them. Interactive systems can be programmed to link procedure codes to ensure the right code is submitted to each of the patient's insurers. For example, a private insurance carrier may require the use of procedure code 36145 when billing for venipuncture. Medicare requires G0001 for the same service. The software automatically selects the right code for each insurer.

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Interactive systems usually do more than give feedback that something is missing on a claim. They provide information to help the user correct the problem. For example, when the user enters an invalid CPT code, the interactive medical billing software advises that an invalid CPT was entered. The software may produce a list of valid codes in the system and prompts the user to select one of the codes or enter a new code. Some systems also show the expected payment for each code.

Each software user decides what "prompts" will be in the system. These prompts may also provide feedback as to how coding will affect reimbursement, show other coding options and the expected Medicare reimbursement for each option. The user can accept a system prompt, bypass it or modify it. Interactive systems reduce entry errors. The software uses a form of artificial intelligence to "learn" from past claims activity which services will be paid or denied. Providers can also purchase additional software that analyzes their claim information for compliance with Medicare's correct coding initiative. Software manufactures and others are also working to identify HCFA's *black box* edits.[4] As the body of knowledge about these edits increases, software applications will no doubt be not far behind. What distinguishes interactive software from other medical billing software is its ability to provide the user with information and the likely consequences (no pay, more pay, less pay) of their decision.

Data bases and dictionaries that restrict user choice of diagnostic codes, CPT codes, place of service codes and other claim data can contribute to payment errors.[5] The system may be programmed with default diagnostic codes. Whenever medical services or tests are billed, the default diagnostic code can automatically be added to the claim to ensure that the service, procedure or supply billed to Medicare will avoid Medicare safeguards and be paid. The end result produces claims that are flawlessly executed; unfortunately, the medical record may not support the services billed to Medicare. Diagnostic information must be in the patient medical record for the date of service. If it is not, Medicare will recover any money paid in error.

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[4] The HCFA correct coding initiative (CCI) bundles individual procedures codes into a comprehensive service code which reflects correct reimbursement. It also detects procedures billed separately that are unlikely to be performed in combination. In addition to bundling and unbundling, the CCI checks to see if the most extensive procedure is being billed and whether the claim meets medical standards of practice. The term black box refers to proprietary software purchased by Medicare to screen claims. These edits are not published as part of the national correct coding initiative; hence, the name "black box" edits. While HCFA has gone to great lengths to prevent release of black box edits, a number of sources have published information about suspected black box edits.

[5] Medicare requires that providers associate a diagnosis, symptom, complaint, condition or problem with each service, procedure or supply billed to Medicare. They use the International Classification of Diseases, 9th Revision (ICD-9). The ICD-9 codes provide information about the primary diagnosis or reason for a medical visit (i.e., high blood pressure, ICD-9 code 401) and information about complications (i.e,. High blood pressure with congestive heart failure, ICD-9 codes 402-405).

Proprietary software

> *" Controls should be established to prevent unauthorized and potentially inaccurate computer changes from being incorporated into [the medical billing system]...."*
> (GAO. Page 50)

Software developed for a single individual or a small group probably posses the greatest risk of financial harm to the Medicare program. In some cases, the number of people involved in developing and implementing proprietary software is limited to one or two individuals. This reduces the likelihood that someone will see and correct programming that produces erroneous claims.

The degree of risk associated with proprietary software is directly related to the number of individuals involved and the checks and balances used during development of software. A recent *qui tam* suit against a billing company revealed that the owners of the company configured their proprietary software to generated erroneous claims.[6] They accomplished this by manipulating and using legitimate information about patients and providers already available in their system. The company agreed to pay $1.5 million to resolve allegations that the company defrauded Medicare and other health care programs.

In another case, emergency room physicians contracted for billing services from a hospital.[7] The physicians were unaware that the hospital had purchased and designed billing software that automatically upcoded the services of the physicians. The physicians were paid based on the codes they provided to the hospital billing department. The hospital kept the higher payment generated from upcoding. The hospital and physicians agreed to a civil settlement and paid more than $600,000 to settle the case.

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[6] U.S. *v*. Medaphis, Central District of California

[7] U.S. v Saint Anthony-Mercy Hospital and Columbus Emergency Physicians, Inc.

CONCLUSION

Billing Medicare has become a complex endeavor. The sheer number of diagnostic codes, procedure codes and other coding requirements increase the chance of billing error. Automation helps physicians, and other Medicare providers, manage data. It helps ensure that claims for reimbursement will meet Medicare standards for claims acceptance. The same tools used to ensure accurate billing can also be misused to maximize reimbursement and to submit false claims.

The HCFA needs to evaluate its electronic claim safeguards and PECOS is a step in the right direction toward ensuring that only agencies authorized by a provider can submit claims. As further work is done in this area, HCFA may want to consider:

▸ Identifying and registering all clearinghouses and third-party billers. The Internal Revenue Service requires preparers of tax returns to identify themselves. Medicare should require claim preparers to do the same. This would provide an audit trail and ensure that claims enter the Medicare system from authorized sources.

▸ Improving safeguards to ensure that electronic claims are accepted only from authorized sites and terminals. Passwords and new technologies, such as caller identification, can be used to ensure that claims are received and processed only from known terminals.

▸ Educating the provider community concerning their liability for erroneous claims submitted to Medicare using their provider number(s).   The HCFA currently relies on provider reviews of remittance notices to identify misuse of provider numbers. These notices can be re-routed to a billing company, or another address, and providers may never see them. Providers should be made aware of their responsibility to review remittance notices.

HCFA COMMENTS

We received comments to this report from HCFA. They concurred with all of our recommendations and provided technical comments. Where appropriate, this report was revised to incorporate those comments and suggestions. The full text of HCFA's response can be found in Appendix A.

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APPENDIX A

Health Care Financing Administration
Response to this Report

DATE: MAR — 1 2000

TO: June Gibbs Brown
              Inspector General

FROM: Nancy-Ann Min DeParle
              Administrator

SUBJECT: Office of the Inspector General (OIG) Draft Report: "Medical Billing
              Software and Processes Used to Prepare Claims" (OEI-05-99-00100)

We appreciate the opportunity to comment on the above-referenced report.

One of our highest priorities is to prevent fraud and abuse in the Medicare program. One way to ensure that Medicare dollars are spent properly is to verify that submitted claims have been prepared accurately. This is critical in a program that is as large and as complex as Medicare. In fiscal year 1998, Medicare received and processed more the 700 million Part B claims. Medicare also processed 149 million Part A claims in fiscal year 1998, nearly all of which (96%-97%) were submitted electronically.

We agree with the OIG that all electronic claims systems used by health insurance systems, both public and private, have inherent vulnerabilities to fraud and abuse. That is why the Health Care Financing Administration (HCFA) has taken, and will continue to take, action to improve the integrity of our billing system.

We appreciate your acknowledgment that HCFA has already taken a significant step in improving program integrity by creating a new computer system, called the Provider Enrollment, Chain and Ownership System (PECOS). In combination with our ongoing efforts, this system will greatly improve our ability to fight fraud and abuse by allowing better tracking of billing agents. The PECOS, scheduled to begin operations with the fiscal intermediaries during the summer of 2000, will work in conjunction with provider enrollment applications. It will enable HCFA to determine which providers use a specific billing agent, and it will also record all provider enrollment information for each provider.

More work remains to be done. As the PECOS is fully implemented over the next several years, we will continue to make improvements in the billing process. We appreciate the suggestions made by the OIG. We concur with the OIG's recommendations and will initiate a process to implement them. Our detailed comments are attached.

Attachment

OIG Recommendation
HCFA should identify and register all clearinghouses and third-party billers. The Internal Revenue Service requires preparers of tax returns to identify themselves. Medicare should require claim preparers to do the same. This would provide an audit trail and ensure that claims enter the Medicare system from authorized sources.

HCFA Response
We concur. In fact, the provider enrollment application is already being revised, and we plan to collect additional information regarding provider, third-party biller arrangements and identification of any clearinghouses used by the provider. The application will also contain sections for the providers to update information relevant to both third-party billers and clearinghouses. HCFA requires providers to periodically and formally revalidate their provider information, and to notify their fiscal intermediaries, within 30 days, of changes in the provider enrollment information. In the future, the information collected will be retained in the electronic online PECOS database. PECOS will be accessible to both intermediaries and carriers.

OIG Recommendation
HCFA should improve safeguards to ensure that electronic claims are accepted only from authorized sites and terminals. Passwords and new technologies, such as caller identification, can be used to ensure that claims are received and processed only for known terminals.

HCFA Response
We concur. We understand that our system, like all other public and private electronic billing systems, has vulnerabilities. We are working to strengthen our system by educating providers and third party billers of the law and regulations. We are also working to ensure that our contractors understand and consistently implement the law and regulations. In fact, we are going even further than this recommendation and looking into technologies to identify the originator of a transaction. We will carefully evaluate these recommendations and implement them as appropriate in our program.

OIG Recommendation
HCFA should educate the provider community concerning their liability for erroneous claims submitted to Medicare using their provider number(s). HCFA currently relies on provider reviews of remittance notices to identify misuse of provider numbers. These notices can be re-routed to a billing company, or another address, and providers may never see them. Providers should be made aware of their responsibility to review remittance notices. Perhaps, this responsibility can be reinforced during the implementation of PECOS.

<u>HCFA Response</u>
We concur. In fact, we have already begun working on this process. Under Article II of the Medicare contractors' contracts with HCFA, each contractor is responsible for serving as a communication source between HCFA and the health care provider community. This includes advising providers on the requirements for retaining their billing privileges. These requirements will be reinforced through the revised provider enrollment form and process. As a result of these changes, providers should be made aware of their responsibility to review remittance notices as the OIG suggests. We will continue to evaluate the relationship between contractors and providers to develop improved communications systems.

<u>Technical Comments</u>
Page 1, the statement in the Executive Summary incorrect regarding PECOS. PECOS will not create a central repository of billing agents used by providers. It will record all provider enrollment information for each provider, and will capture some information on chain organizations.

Page 1, the second sentence should read: "In fiscal year 1998, Medicare received and processed more the 700 million Part B claims." The following sentence should be added after the second sentence: "Medicare also processed 149 million Part A claims in fiscal year 1998, nearly all of which (96%-97%) were submitted electronically."

Page 6, the first sentence should read: "In fiscal year 1998, Medicare received and processed more the 700 million Part B claims." The following sentence should be added after the first sentence: "Medicare also processed 149 million Part A claims in fiscal year 1998, nearly all of which (96%-97%) were submitted electronically."

Page 16, under "Interactive Software" (which begins on page 15), the statement is made "Providers can also purchase additional software that analyzes their claim information for compliance with Medicare's correct coding initiative and *black box* edits." Since Medicare has gone to great lengths to prevent the release of the *black box* edits to anyone other than the Medicare claims processing systems, this statement is probably in error. If it is not, we need to know which vendor of the software is claiming to have the *black box* edits. Otherwise, HCFA is under the threat of prosecution by the contractor who has leased these proprietary edits.

Page 16, footnote number 4, where the International Classification of Diseases, 9th Revision is attributed to the American Medical Association. This is incorrect. The Department of Health and Human Services is responsible for ICD-9-CM, and its maintenance.

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